DETAILED ACTION

Receipt is acknowledged of a reply, filed August 9, 2002 as Paper No. 15, to the previous Office Action. Amendment of claims 1-3, 10, 11, 15, 18, 33-36, 43, 44 and 48 have been acknowledged and entered. Amendments to the specification to comply with the requirements of 37 CFR 1.821-1.825 have been acknowledged and entered. However, applicant has not stated in the amendment that no new matter has been introduced into the specification, as required. Applicant must provide this statement accordingly.

Claims 1-18, 26 and 33-50 are ready for examination in the pending application. Any rejection of record in the previous Office Action, Paper No. 14 mailed May 9, 2002, that is not addressed in this action has been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 10, 11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim *et al.* (*The Plant Journal* **11**(6): 1237-1251; IDS reference; see entire reference). **This rejection is maintained for reasons of record in Paper No. 13.**

Response to Arguments for 102 Rejections

Applicant's arguments filed August 9, 2002 have been fully considered but they are not found to be persuasive.

Applicant's traversal of the 102(b) rejection of claims 1, 10, 11 and 13 is not found to be persuasive. Applicant has amended the claims to contain the term "cloned", and states that support for this amendment can be found on page 10, lines 35-36. However, there does not appear to be an alternative definition for the term "cloned" in the indicated location. As such, the term "cloned" is defined with its art accepted meaning, to have copies of a DNA sequence made. As such, Kim *et al.* continues to read on the claims as amended, since the DNA as used therein must be cloned into the one-hybrid vector to be used in the assay. Therefore, the rejection of claims 1, 10, 11 and 13 by 35 U.S.C. 102(b) is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim *et al.* in view of Memelink *et al.* (WO 0046383, see entire document; henceforth the '383 publication. **This rejection is maintained for reasons of record in Paper No. 13.**

Response to Arguments for 103 Rejections

Applicant's traversal of the 103(a) rejection of claims 5-9 and 12 is also not found to be persuasive. Applicant's traversal is based on 1) the assertion that Kim *et al.* no longer teaches the elements of claims 1, 10, 11 and 13 as presented in applicant's arguments regarding the 102(b) rejection and 2) the assertion that the '383 publication does not provide "motivation to identify transcription factors using the methods of Kim *et al.* or any method at all because the transcription factor nucleotide sequences are already known" or "pre-selected".

In light of the above comments concerning the 102(b) rejection, applicant's first basis of traversal is not considered persuasive. Concerning the second basis of traversal, the examiner recites the following as an indication of an attempt to identify transcription factors in the '383 publication: on page 8, lines 5-18, the '383 publication describes a method for identifying a nucleotide sequence coding for a transcription factor, isolating it (cloning, as per applicant' amendment) and inserting it into a cell to modulate the expression of a gene involved in the biosynthesis of a metabolite. When considering the above citations, the '383 publication clearly teaches identifying transcription factor polynucleotide sequences. Therefore, applicant's assertion that all of the polynucleotide sequences in '383 are known is not accurate. Furthermore, on page 48, lines 10-22, the '383 publication teaches an embodiment of the invention as indicated above, where at least two isolated (i.e., cloned) nucleotide sequences are used, hence representing a "pool" of transcription factors. Since the '383 publication does teach the identification of polynucleotides that encode transcription factors, the ordinary skilled artisan would have been motivated to look to the teachings of Kim *et al.*, which provide a method for identifying transcription factors, to apply different techniques of transcription factor

identification in order to obtain a comprehensive analysis of all potential transcription factors. Therefore, the second basis for applicant's traversal is found unconvincing because the '383 publication does provide motivation to look to the teachings of Kim *et al.* as indicated above, hence the rejection is maintained.

New Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1, 2, 4-14, 16, 17, 33, 35 and 37-49 are rejected under 35 U.S.C. 102(e) as being anticipated by the '383 publication. This is a new rejection not raised in the previously Office Action.

Briefly, applicant's invention is a method of detecting a transcription factor from a pool of transcription factor encoding polynucleotides (where at least one or at least two or more polynucleotides are used) by introducing the polynucleotides into a cell comprising a reporter gene operably linked to the promoter of a pathway gene, where the transcription factor encoding polynucleotides can be selected either based on structural similarity, or without regard to structural similarity. In some embodiments of the invention, more than one pathway gene is detected. In more specific embodiments of the invention, the pathway gene is a biosynthetic